

This resource is for ENGRUD students who entered the UW in AUT22 or AUT23.

Note: The HCDE Department is planning significant curriculum changes for students who place into the major in AUT24 or later, including updates to the math/statistics, natural science, and engineering fundamentals course lists.

HCDE

**Human Centered Design and Engineering
Graduation Requirements**
University of Washington
<http://hcde.washington.edu>

ENGRUD Requirement Sheet – Key:

◆ = Placement Requirements;

★ = Pick **one** to satisfy placement requirement

Placement: July 1 at the end of the first year

◆ **E-FIG: ENGR 101 and GEN ST 199 (2cr)**

Mathematics (15cr)

◆ **MATH 124, 125, 126 – Calc w/ Analytical Geom. I-III (15cr)**

Sciences (15cr)

◆ **CHEM 142 - General Chemistry (5cr)**

◆ **PHYS 121 - Mechanics (5cr)**

[pr: MATH 124 or MATH 134]

Additional science from list below to reach 15cr

Additional Math/Science (20cr)

See list of qualifying courses on department website. Courses recommended by CoE for placement process include:

★ **STAT 220 - Principles of Statistical Reasoning (5cr)**

★ **CHEM 152 - General Chemistry (5cr)**

[pr: CHEM 142, CHEM 143, or CHEM 145]

★ **CHEM 162 - General Chemistry (5cr)**

[pr: CHEM 152]

★ **PHYS 122 - Electromagnetism (5cr)**

[pr: MATH 125 or MATH 134; PHYS 121 or 141]

★ **PHYS 123 - Waves, Light, and Heat (5cr)**

[pr: MATH 126 or MATH 134; PHYS 122 or 142]

Engineering General Education Requirements (38cr)

Written and Oral Communication:

◆ **English Composition (5cr)**

ENGR 231 - Intro to Communication (3cr)

Areas of Inquiry:

Arts & Humanities – A&H (10cr)

Social Sciences - SSc (10cr)

Additional A&H or SSc (10cr)

Diversity - DIV (5cr) (may overlap with A&H or SSc)

Engineering Fundamentals (12cr)

★ **CSE 160 Data Programming (4cr) OR**

★ **CSE 121 Introduction to Computer Programming I (4cr) OR**

★ **CSE 122 Introduction to Computer Programming II (4cr) OR**

8 credits from: A A 210, A A 260, CEE 220, ★ **CSE 123**, E E 215, HCDE 496 (up to 4 cr), IND E 250, I S 300, ★ **ME 123**, ME 230, ★ **MSE 170**, PHIL 120

Departmental Core (41cr)

HCDE 300 - Foundations of HCDE (5cr)

HCDE 301 - Advanced Communication in HCDE (5cr)

HCDE 308 - Visual Communication in HCDE (5cr)

HCDE 310 - Interactive Systems Design and Technology (5cr)

HCDE 313 - Intro to User Research (5cr)

HCDE 318 - Intro to User Centered Design (5cr)

HCDE 321 - Professional Portfolio (2cr)

HCDE 322 - Organizational Teamwork (2cr)

HCDE 492 - Capstone Planning (2cr)

HCDE 493 - Senior Capstone (5cr)

Experiential Learning (4cr)

Any combination of the following:

ENGR 321 - Engineering Internship Education (1-2cr)

HCDE 496 - Directed Research in HCDE (1-5cr)

HCDE 497 – Study Abroad: HCDE (3-5 cr)

Department Electives (25cr)

Complete 25 credits from HCDE electives list. See department website for list of approved courses.

Free Electives (8cr)

Additional coursework in any subject area not used elsewhere in degree.

Total credits required for graduation: 180cr

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**Human Centered Design and Engineering
Sample Curriculum**
University of Washington
<http://hcde.washington.edu>

HCDE Advising
Office: 423 Sieg Hall, Box 352315
Seattle, WA 98195-2315
Email: askhcde@uw.edu

This is a sample four-year plan for ENGRUD students that prepares them to be able to request placement at the end of the first year. It is intended to provide a framework for ENGRUD students to reference as they create their own individual academic plan.

Courses required to request placement for ENGRUD students: **ENGR 101; MATH 124, 125, 126; CHEM 142; PHYS 121; English Composition; ENGRUD students who are interested in HCDE should choose one of the following: CHEM 152, CHEM 162, CSE 121, CSE 122, CSE 160, ME 123, MSE 170, PHYS 122, PHYS 123, STAT 220.**

First Year

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
◆ MATH 124 - Calc w Analytic Geom I	5	◆ MATH 125 - Calc w Analytic Geom II	5	◆ MATH 126 - Calc w Analytic Geom III	5
◆ English Composition	5	◆ CHEM 142 - General Chemistry	5	◆ PHYS 121 - Mechanics	5
◆ E-FIG; ENGR 101 & GEN ST 199	2	★ STAT 220 - Statistics	5	★ CSE 121 <u>OR</u> CSE 122 <u>OR</u> CSE 160	4
A&H / SSc / DIV	3-5				
Qtr. Total:	15	Qtr. Total:	15	Qtr. Total:	14

Second Year

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
Approved Natural Science	5	Approved Math/Science	5	Approved Math/Science	5
Engineering Fundamentals	4	Engineering Fundamentals	5	A&H / SSc	5
A&H / SSc / DIV	5	A&H / SSc	5	A&H / SSc	5
Free Elective	2				
Qtr. Total:	16	Qtr. Total:	15	Qtr. Total:	15

Third Year

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
HCDE 310 - Interact Sys Design & Tech	5	HCDE 300 - Foundations of HCDE	5	HCDE 313 - Intro to User Research	5
HCDE 318 - Intro to User Centered Design	5	HCDE 301 - Written Comm in HCDE	5	HCDE 308 - Visual Comm. in HCDE	5
ENGR 231 - Intro to Comm in HCDE	3	HCDE 321 - Professional Portfolio	2	HCDE 322 - Organizational Teamwork	2
Free Elective	3	HCDE 496 - Directed Research in HCDE	2	HCDE 496 - Directed Research in HCDE	2
Qtr. Total:	16	Qtr. Total:	14	Qtr. Total:	14

Fourth Year

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
HCDE Elective	5	HCDE 492 - Capstone Planning	2	HCDE 493 - Senior Capstone	5
HCDE Elective	5	HCDE Elective	5	HCDE Elective	5
Approved Math/Science	5	HCDE Elective	5	A&H / SSc	5
		Free Elective	3		
Qtr. Total:	15	Qtr. Total:	15	Qtr. Total:	15

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